

#### **4.3.4.1.7 Cultural and Paleontological Resources**

This section discusses the potential impacts to cultural and paleontological resources that may result from the construction and operation of the vitrification facility at each of the representative sites analyzed. The total land disturbed during the construction of this facility is 24 ha (60 acres), of which 12 ha (30 acres) would be used during operation. [Text deleted.] If existing facilities were used for a portion of the vitrification operation, less land would be disturbed and there would be fewer impacts to cultural and paleontological resources. For the discussion of impacts, the term cultural resources includes prehistoric, historic, and Native American resources. Cultural and paleontological resources at the representative sites may be affected directly through ground disturbance during construction, building modification, visual intrusion of the project to the historic setting or environmental context of historic sites, visual and audio intrusions to Native American resources, reduced access to traditional use areas, and unauthorized artifact collecting and vandalism.

##### ***Hanford Site***

The facility would be constructed west of the 200 East Area. Although no archaeological resources were identified during surveys conducted in the adjacent 200 Areas, some may exist in the project area. Any such sites may be identified through additional surveys. Any identified sites would be avoided. Operation would not result in additional impact.

Although all of Hanford is considered sacred land by some Native American groups, no areas of great cultural significance have been identified in close proximity to the 200 Areas. Resources may be identified through project-specific consultation. Impacts from construction and operation may include reduced access to traditional use areas or visual or auditory intrusion into sacred or ceremonial space.

Pliocene and Pleistocene fossil remains have been discovered at Hanford. Although none have been recorded in the project area, they may exist. These resources may be affected by ground disturbing construction. Operation would not have an additional impact on paleontological resources.

##### ***Nevada Test Site***

The vitrification facility would be constructed in Area 6, near the DAF on Frenchman Flat. In 1984, a Class III cultural resources survey was conducted across the 660-ha (1,610-acre) DAF site and no NRHP-eligible sites were identified. Although no resources were identified within the DAF project area, Frenchman Flat contains 49 sites which have been determined eligible for inclusion on the NRHP. Recorded prehistoric sites within Frenchman Flat include base and temporary camps, quarries, and lithic reduction areas. Identified historic resources include sites associated with nuclear testing and research. Additional unsurveyed lands necessary for the proposed facility may contain similar prehistoric or historic resources. Impacts to resources would occur during construction, but not operation, of the proposed facility.

The CGTO conducted surveys over portions of Frenchman Flat and identified at least 20 significant plant species. Additional project-specific consultations would be necessary to identify impacts to Native American resources resulting from the construction and operation of the facility. Impacts could include reduced access to traditional use areas and visual or auditory intrusions to sacred space.

Although none have been identified to date, Quaternary deposits containing scientifically valuable paleontological remains may occur in the area to be disturbed during construction. Such remains have been found near NTS. Paleontological remains may be affected by construction, but not operation, of the facility.

### ***Idaho National Engineering Laboratory***

The vitrification facility would be constructed within the existing ICPP security area. The facility would be sited in a location previously approved for the construction of the Special Isotope Separation Project. A surface survey of the area identified no sites within the proposed project area. Although it is possible, the ICPP is unlikely to contain intact subsurface cultural deposits due to prior ground disturbance and environmental setting. INEL has a contingency plan in place should any archaeological remains be discovered during construction. Two historic sites occur adjacent to the ICPP—one historic can scatter across the Big Lost River, to the northeast, and one abandoned homestead to the east. The can scatter is not considered eligible for NRHP-listing and the homestead has been fenced off for protection. Construction and operation are not expected to affect either site.

Native American resources may be affected by the proposed action. Facility construction and operation may have a visual or auditory impact on traditional use areas or sacred sites. Such resources may be identified through consultation with the interested tribes.

Some paleontological remains may be encountered during construction. The ICPP lies on alluvial gravels associated with the Big Lost River floodplain which have produced fossilized remains. Operation would not have an effect on paleontological resources.

### ***Pantex Plant***

The vitrification facility would be constructed in Zone 4 of Pantex. A historic buildings survey was conducted in Zone 4 to identify significant World War II Era structures and none of the buildings there are considered NRHP eligible on that basis. This area has not been systematically surveyed for archaeological resources. Because the area is developed and disturbed, it is unlikely to contain NRHP-eligible archaeological resources. In compliance with the standing Programmatic Agreement, survey work would be conducted on all areas that would be affected by construction prior to ground-breaking activities. Recorded prehistoric resources at Pantex include lithic scatters, hunting/kill sites, and concentrations of fire-cracked rock and are located predominantly near the playas (PX MH 1981a:58). Historic sites are generally associated with farming, such as remains of homes and outbuildings, and World War II and Cold War Era structures. Resources such as these may occur on the land that would be disturbed during construction. Construction, but not operation, may have an effect on any identified resources.

DOE has initiated a public outreach program to involve Native American groups in decision-making related to land use and cultural resources. To date, none of the Native American tribes known to have traditional interest in Pantex lands have identified any sacred sites, ceremonial areas, or cemeteries in Zone 4. Additional consultation may identify some of these resources. Resources such as cemeteries could be affected by new construction. Operation could have an auditory or visual impact on sacred or ceremonial sites.

Important paleontological remains such as bison and camel bones have been found in other areas of the High Plains and it is possible that some may occur in lands to be disturbed by construction at Pantex. Operation would not affect paleontological resources.

### ***Oak Ridge Reservation***

This facility would be constructed at the intersection of Route 95 and Bear Creek Road. A portion of this area on both sides of Bear Creek Road was surveyed prior to construction of the proposed Exxon Nuclear Facility which was never built (OR UTN 1975a:ii). Some prehistoric sites were identified near the Clinch River, and the potential for sites along the smaller creeks exists. In addition, remains of a number of early 20th-century frame houses and mid-to-late 19th-century log houses and outbuildings are located within the project area. Some of

these resources may be affected by facility construction. Additional sites may occur on unsurveyed lands to be disturbed.

No Native American resources have been identified in the project area to date. Some may be identified during project-specific consultation. Native American resources such as cemeteries and traditionally used plant and animal species could be affected by construction. Operation may have an auditory or visual impact on sacred or ceremonial sites.

Some paleontological remains may be encountered on the acreage to be disturbed during construction but no fossil remains with high research value are known to occur at ORR. During operation, no additional ground disturbance is expected, so there would be no additional impact to resources.

#### ***Savannah River Site***

The vitrification facility would be located on open space within F-Area. Portions of F-Area have been surveyed and contain sites potentially eligible for the NRHP. Site types known to occur at SRS include remains of prehistoric base camps, and lithic quarries and workshops. Historic resources include remains of farmsteads, cemeteries, churches, and schools. Resources such as these may be affected by the proposed action. Operation would not have an additional impact on archaeological resources.

Some Native American resources may be affected by the proposed action. Resources such as prehistoric sites, cemeteries, and traditional plants could be affected by construction. Facility operation could result in reduced access to traditional use areas or sacred space. Visual or auditory intrusions to these areas may also result from the proposed alternative. These resources would be identified through consultation with the potentially affected tribes.

Some paleontological remains may occur on this acreage, but impacts would be considered negligible because the fossil assemblages known to occur at SRS are of low research value. During operation, no additional ground disturbance would be expected, so there would be no additional impact to resources.

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